

PNEUMATIC PISTON CUT-OFF VALVE 气动活塞切断阀

产品概述 Product Overview

本公司生产的系列气动活塞切断阀是属于组合仪表中的执行单元。它接收来自调节仪表的信号，控制工艺管道内流体的切断与接通。该系列阀具有设计新颖，流阻小、额定流量系数大、用压差大、密封性能好等优点。因而本产品广泛应用于石油、化工、冶金、电力、轻纺等工业部门的生产过程自动控制与远程控制系统中。

The series of pneumatic piston cut-off valves produced by the company belong to the execution unit in the combination instrument. The valve receives the signal from the regulating instrument and controls the cut-off and connection of the fluid in the process pipeline. This series of valves have the advantages of novel design, small flow resistance, large rated flow coefficient, large allowable pressure difference, good sealing performance, etc. Therefore, this product is widely used in the automatic control and remote control system of production process of petroleum, chemical industry, metallurgy, electric power, light textile and other industrial sectors.



PNEUMATIC PISTON CUT-OFF VALVE 气动活塞切断阀

产品特点 Products Features

- 1、整体高度可减小约30%，重量可减轻约30%。
- 2、阀体按流体力学原理设计成等截面低流阻流道，额定流量系数增大30%。
- 3、密封形式为软、硬密封2种，采用聚四氟乙烯或对位聚苯密封，硬密封堆焊硬质合金，密封性能好。
- 4、平衡型阀内件，提高了切断阀的许用压差。

1. The overall height of the valve can be reduced by about 30%; and the weight can be reduced by about 30%.
2. The valve body is designed as a low flow resistance passage with constant cross section according to the fluid mechanics principle; and its rated flow coefficient increases by 30%.
3. There are soft and hard two kinds of sealing forms. PTFE or PPPs are used for soft sealing. Hard sealing is overlaid with hard alloy. The sealing performance is better.
4. Balanced valve trim improves the allowable pressure difference of cut-off valve.



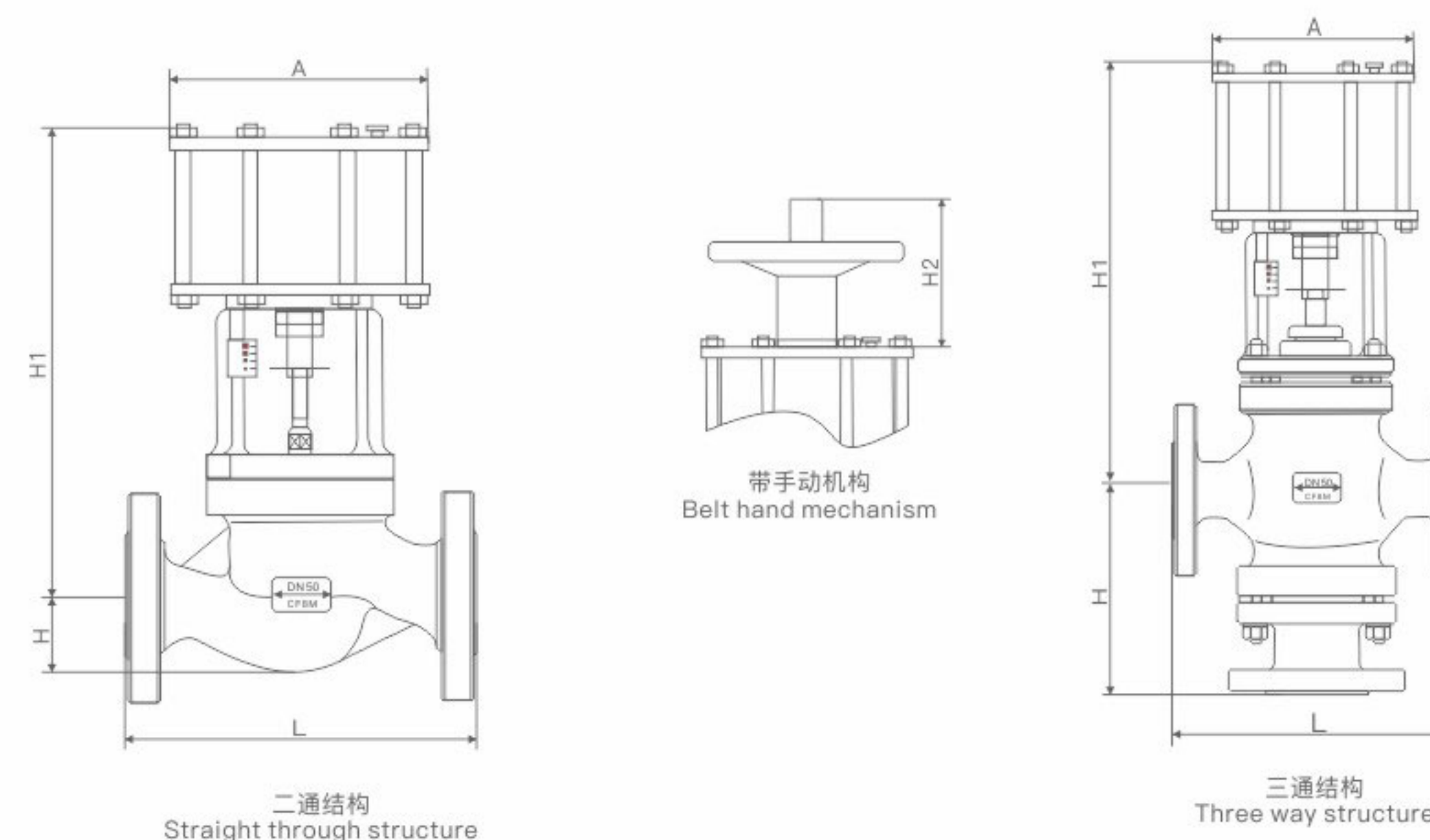
主要零件材料 Part material

阀体 Body	HT200、QT450、WCB、304、316、316L
阀芯 Plug	304、316、316L
阀座 Seat	304、316、316L
阀杆 Stem	304、316、316L
执行器材质 Actuator material	ZG230-450 (WCB)
填 料 Packing	聚四氟乙烯、柔性石墨 PTFE、Flexible graphite
活塞 Piston	ZAISi12

注：常规材质为碳钢和不锈钢两种，可根据用户现场条件订制特殊材质控制阀产品。
The conventional material is carbon steel and stainless steel, and the special material regulating valve products can be customized according to the user's work conditions.

技术参数 Technical Parameters

公称通径DN(mm) NPS(in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
公称压力(MPa) Nominal pressure		PN1.6、2.5、4.0、6.4MPa										
额定流量系 数Kv Rated flow coefficient	单座 Single seat	7	11	20	30	48	75	120	190	300	480	760
	套筒 Sleeve	8	11	20	30	48	75	120	190	300	480	760
	三通 Tee	8	12	17	29	43	70	110	165	275	440	690
额定行程mm Rated travel		8			12		20		25	40		60
活塞有效面积cm ² Effective cross-area of piston		150			175		305			700		1245
允许泄漏量 Allowable leakage	硬密封 Hard seal	一般：10 ⁻⁴ ×阀额定容量；严密型：单座：1.2X10 ⁻⁷ General: 10 ⁻⁴ × valve rated capacity; seal type: single seat: 1.2X10 ⁻⁷										
	软密封 Soft seal	VI级										
允许压差MPa Allowable pressure differential		≤公称压力 Nominal pressure										
信号压力KPa Signal pressure		0 或 400~600 0 or 400~600										
阀盖形式 Bonnet type		标准型(-17~+250℃)、高温型(+250~+450℃)、低温型(-40~-196℃)、波纹管密封型(-40 +350℃) Standard type (-17~+250℃), High temperature type (+250~+450℃) Low temperature type (-40~-196℃), Bellows seal type (-40~+350℃)										
压盖型式 Gland type		螺栓压紧式 Bolt compression type										
密封填料 Sealing packing		V型聚四氟乙烯填料、含浸聚四氟乙烯填料、石棉编织填料、柔性石墨 V-type PTFE packing, impregnated PTFE packing, asbestos braided packing, flexible graphite										
阀芯形式 Plug form		单座锥式阀芯、套筒双座阀芯、三通结构 Single seat cone valve, sleeve double seat valve core and three-way structure										
流量特性 Flow characteristics		快开特性 Quick opening characteristic										
可配附件 Optional Accessories		手轮机构、限位开关、电磁阀、阀位传送器、气动加速器、保位阀、其它 Hand-wheel mechanism, limit switch, solenoid valve, valve position transmitter, pneumatic accelerator, lock up valve, other										



(单座式、套筒式) 连接尺寸 (Single seater, sleeve type) connection dimensions

公称通径DN(mm) NPS(in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
A		125			160		200			250		320
L	PN16	150	160	180	200	230	290	310	350	400	480	600
H		53	58	70	75	83	93	100	110	125	143	170
H1		220	220	235	235	240	250	260	265	350	400	500
H2		120	120	120	155	155	200	200	200	230	230	230

(三通式) 连接尺寸 (Three way structure) connecting dimensions

公称通径(mm) Nominal diameter (in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
A		125			160		200			250		320
L	PN16	150	160	180	200	230	290	310	350	400	480	600
H		80	80	80	75	95	105	105	105	150	195	250
H1		220	220	235	235	240	250	260	265	350	400	500
H2		120	120	120	155	155	200	200	200	230	230	230

注: 1、表中尺寸为不带附件标准数据, 附件尺寸根据实际配置计算。
2、由于产品的技术创新与改进, 尺寸可能会有所变化, 最新资讯请联系本公司技术部。
Note: 1. The dimensions in the table are standard data without accessories. The dimensions of accessories are calculated according to the actual configuration. 2. Due to the technical innovation and improvement of the product, the size may change. Please contact the technical department of the Company for the latest information.

PNEUMATIC DIAPHRAGM
CUT-OFF VALVE
气动薄膜切断阀

产品概述 Product Overview

气动薄膜切断阀是采用顶导向结构，配用多弹簧薄膜执行机构。阀体结构形式有单座、套筒、三通等三种结构。具有结构紧凑、重量轻、动作灵敏、流体通道呈S流线型、压降损失小、阀容量大、拆装方便等优点。该阀接收来自调节仪表的信号，切断、开启或改变介质流向，达到对压力、流量、温度或液位等工艺参数自动控制。广泛应用于环保水处理、石油、化工、冶金、电力、轻工、纺织等各种工业部门的生产过程自动控制和远程控制系统中。

The pneumatic diaphragm cut-off valve is subject to a top guide structure with multi spring diaphragm actuator. There are three types of valve body structure: single seat, sleeve and three-way. It has the advantages of compact structure, light weight, sensitive action, S streamlined fluid passage, small pressure drop loss, large valve capacity, convenient disassembly and assembly, etc. The valve receives the signal from the regulating instrument, cuts off, opens or changes the flow direction of the fluid to achieve the automatic control of the process parameters such as pressure, flow, temperature or liquid level. It is widely used in the automatic control and remote control system of production process of environmental protection water treatment, petroleum, chemical industry, metallurgy, electric power, light industry, textile and other industrial sectors.



PNEUMATIC DIAPHRAGM
CUT-OFF VALVE
气动薄膜切断阀

产品特点 Products Features

- 1、整体高度可减小约30%，重量可减轻约30%。
- 2、阀体按流体力学原理设计成等截面低流阻流道，额定流量系统数增大30%。
- 3、密封形式为软、硬密封2种，采用聚四氟乙烯或对位聚苯密封，硬密封堆焊硬质合金，密封性能好。
- 4、平衡型阀内件，提高了切断阀的许用压差。
1. The overall height of the valve can be reduced by about 30%; and the weight can be reduced by about 30%.
2. The valve body is designed as a low flow resistance passage with constant cross section according to the fluid mechanics principle; and its rated flow coefficient increases by 30%.
3. There are soft and hard two kinds of sealing forms. PTFE or PPPs are used for soft sealing. Hard sealing is overlaid with hard alloy. The sealing performance is better.
4. Balanced valve trim improves the allowable pressure difference of cut-off valve.

主要零件材料 Part material

阀体 Body	ZG230~450、ZG1Cr18Ni9Ti、ZGCr18Ni12Mo2Ti
阀芯 Plug	1Cr18Ni9Ti、Cr18Ni12Mo2Ti
阀座 Seat	1Cr18Ni9Ti、Cr18Ni12Mo2Ti
阀杆 Stem	1Cr18Ni9Ti、Cr18Ni12Mo2Ti
执行器材质 Actuator material	A3、1Cr18Ni9Ti
填料 Filler	聚四氟乙烯、柔性石墨 PTFE, Flexible graphite
膜片 Diaphragm	丁腈橡胶、耐油橡胶、氟橡胶 Nitrile rubber, oil resistant rubber, fluorine rubber

注：常规材质为碳钢和不锈钢两种，可根据用户现场条件订制特殊材质控制阀产品。
The conventional material is carbon steel and stainless steel, and the special material regulating valve products can be customized according to the user's work conditions.

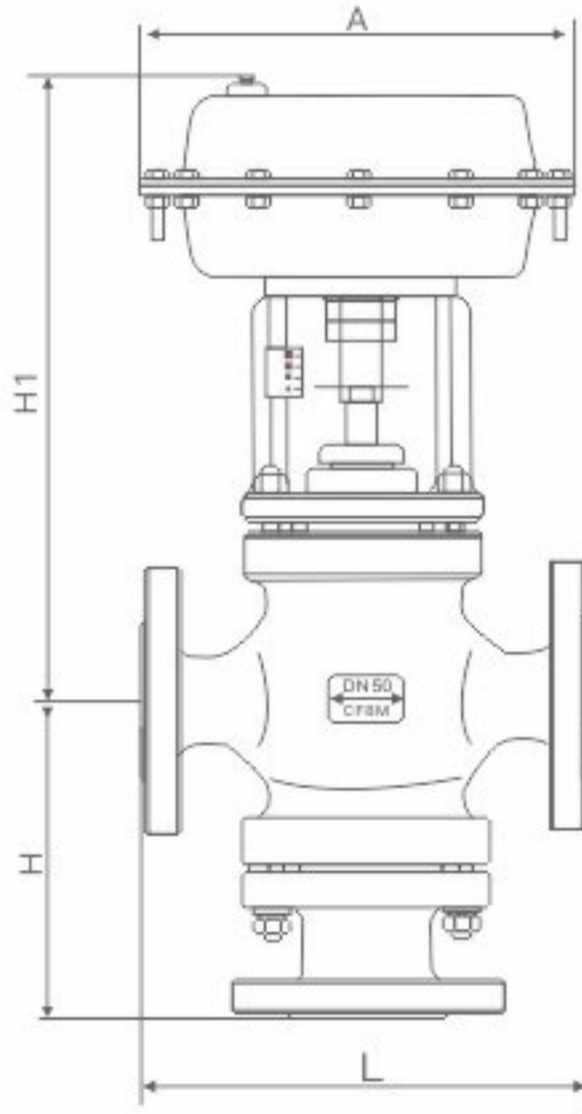
PNEUMATIC DIAPHRAGM
CUT-OFF VALVE
气动薄膜切断阀



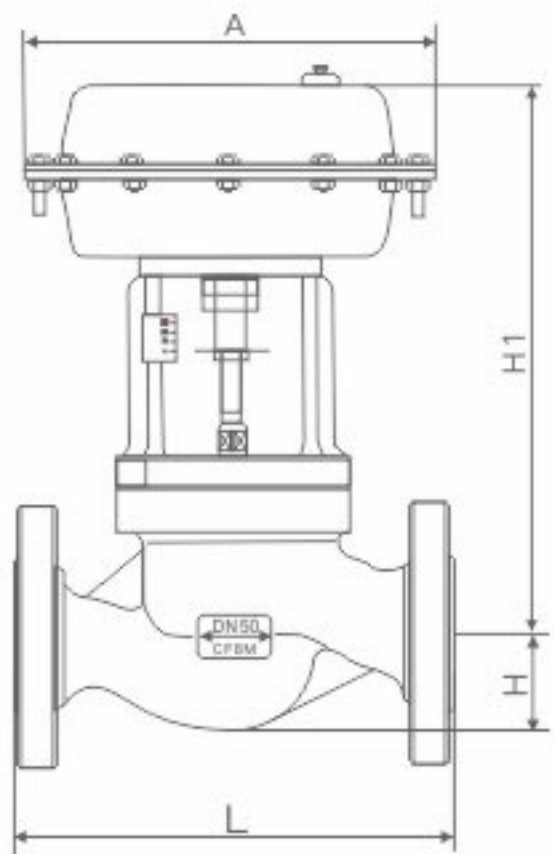
技术参数 Technical Parameters

公称通径DN(mm) NPS(in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
公称压力(MPa) Nominal pressure		PN1.6、2.5、4.0、6.4MPa										
额定流量 系数Kv Rated flow coefficient	单座 Single seat	7	11	20	30	48	75	120	190	300	480	760
	套筒 Sleeve	8	11	20	30	48	75	120	190	300	480	760
	三通 Tee	8	12	17	29	43	70	110	165	275	440	690
额定行程mm Rated travel		8			12		20		25	40		60
活塞有效面积cm ² Effective piston area		100			200		400			600		1000
允许 泄露量 Allowable leakage	硬密封 Hard seal	一般：10 ⁻⁴ ×阀额定容量；严密型：单座：1.2X10 ⁻⁷ General: 10 ⁻⁴ × valve rated capacity; seal type: single seat: 1.2X10 ⁻⁷										
	软密封 Soft seal	VI级										
允许压差 MPa Allowable differential pressure	正作用 Positive effect	5.09	2.91	1.85	2.18	1.33	1.52	0.99	0.62	0.60	0.69	0.39
	反作用 Counter action	6.4	3.88	2.47	2.91	1.77	2.03	1.32	0.83	0.80	0.92	0.52
信号压力KPa Signal pressure		0 或 400~600 0 or 400~600										
阀盖形式 Valve cover form		标准型(-17~+250℃)、高温型(+250~+450℃)、低温型(-40~-196℃)、波纹管密封型(-40~+350℃) The standard type (-17~+250℃), high temperature (+250~+450℃) and low temperature (-40~-196℃), bellows seal type (-40~+350℃)										
压盖型式 Gland type		螺栓压紧式 Bolt pressing type										
密封填料 Sealing packing		V型聚四氟乙烯填料、含浸聚四氟乙烯填料、石棉编织填料、柔性石墨 V type PTFE packing, impregnated PTFE packing, asbestos braided packing, flexible graphite										
阀芯形式 Plug form		单座锥式阀芯 Single seat valve										
流量特性 Flow characteristics		快开特性 Quick opening characteristic										

PNEUMATIC DIAPHRAGM
CUT-OFF VALVE
气动薄膜切断阀



三通结构
Three way structure



二通式结构
Straight through structure

(单座式、套筒式) 连接尺寸 (Single seater, sleeve type) connection dimensions

公称通径DN(mm) NPS(in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
A		196			232		308			394		498
L	PN16	150	160	180	200	230	290	310	350	400	480	600
H		53	58	70	75	83	93	100	110	125	143	170
H1		340	345	370	380	390	475	490	500	765	825	927

(三通式) 连接尺寸 (Three way structure) connecting dimensions

公称通径(mm) Nominal diameter (in)		20 3/4	25 1	32 1-1/4	40 1-1/2	50 2	65 2-1/2	80 3	100 4	125 5	150 6	200 8
A		196			232		308			394		498
L	PN16	150	160	180	200	230	290	310	350	400	480	600
H		132	132	135	140	150	160	160	170	325	450	495
H1		340	345	370	380	390	475	490	500	765	825	927

注: 1、表中尺寸为不带附件标准数据, 附件尺寸根据实际配置计算。
2、由于产品的技术创新与改进, 尺寸可能会有所变化, 最新资讯请联系本公司技术部。
Note: 1. The dimensions in the table are standard data without accessories. The dimensions of accessories are calculated according to the actual configuration. 2. Due to the technical innovation and improvement of the product, the size may change. Please contact the technical department of the Company for the latest information.